

Introduction

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Overview

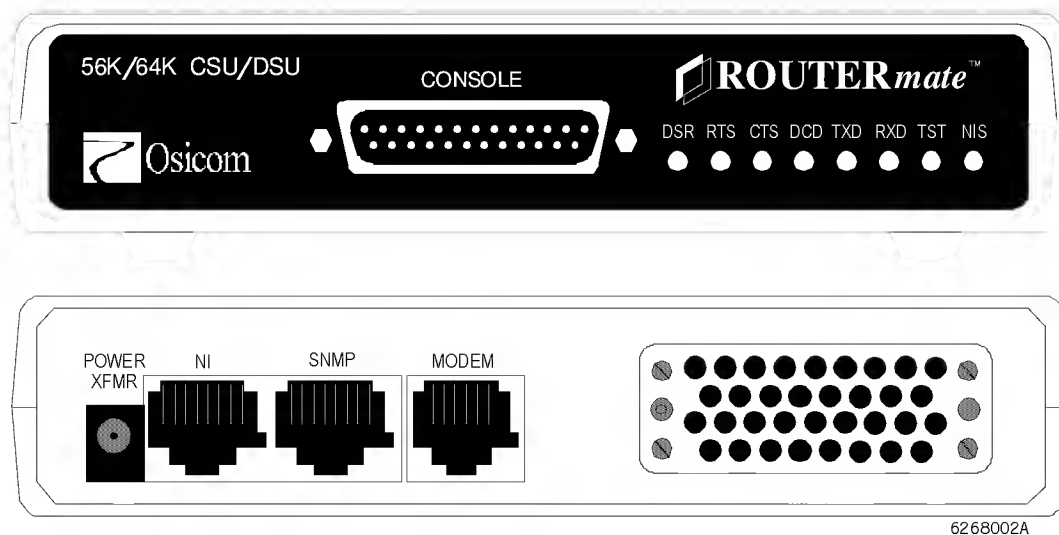
Osicom Technologies' ROUTERmate™ 56K/64K CSU/DSU is a combined Channel Service Unit and Data Service Unit designed for use with AT&T's Digital Data System (DDS) and similar digital services.

The Routermate operates in point-to-point installations and can also function as a point-to-point Limited Distance Modem (LDM) on a customer-owned 4-wire facility (DDSI only).

It includes a standard V.35 DTE interface.

Ordering information and part numbers for all versions of the Routermate are listed in [Appendix B](#).

Figure 1-1 Routermate 56K/64K CSU/DSU



Functional Description

The CSU/DSU transmits serial synchronous data over the DDS network or other 4-wire, unloaded, twisted pair cable systems. It uses a bipolar return-to-zero signal and accepts digital signals on a V.35 interface and converts them to a bipolar AMI format.

The receiving CSU/DSU converts the bipolar AMI format back to digital signals which are sent to the receiving device.

The CSU/DSU operates at the following synchronous speeds:

- 56000 bps
- 64000 bps

System Features

Routermate 56/64 system features include:

Management

The Routermate can be managed by a variety of methods.

Management Screens - password-protected management screens can be accessed from a PC or serial terminal connected directly to the Console port or by a Telnet connection via the SNMP interface.

SNMP - an embedded Simple Network Management Protocol (SNMP) agent resides in the CSU/DSU. An enterprise Management Information Base (MIB) provides full configuration and diagnostic control. SNMP is via a SLIP link, commonly supported by routers, terminal servers, and workstations.

Telnet - a Telnet connection can be made to the Routermate's SNMP interface to access the management screens.

One Telnet connection is allowed at a time; however, Telnet, SNMP and dial-in management can be performed at the same time.

Dial-in Management - an optional, integral V.32 modem lets the management screens be accessed from a remote modem over DDD lines, regardless of the state of the primary link.

A router or other device connected to the Routermate's **CONSOLE** interface can also be accessed from a remote modem. In addition to providing access to the CSU's console interface, the dial-in manager can access up to two other ASCII devices attached to the Routermate 56/64.

Hot keys can be used to switch between the Routermate and the other connected devices.

Alarm Call Option - allows the user to enable and to limit the use of the modem to send alarm notifications to an ASCII device attached to a remote modem. When enabled, the integral modem will attempt to dial out if the CSU detects an *Out of Service*, *Out of Frame*, or *No Signal* condition.

Front Panel LEDs

Eight LEDs display data activity, control signal status, and diagnostic tests.

Diagnostic Tests

The Routermate continuously monitors the DDS line and reports any fault so that appropriate action can be taken. A variety of loopbacks and a test pattern generator/comparator are provided.

One of the diagnostic tests built into the Routermate is a V.54 remote digital loopback. This permits an unattended unit to respond to commands from a remote CSU/DSU or other V.54-compatible device.

In addition, the Routermate 56/64 supports both CSU and DSU loopbacks initiated by the Telco at the customer's request. See [Diagnostics](#) on [page 3-10](#).

AT&T Compliance

The Routermate 56/64 complies with the following AT&T technical publications:

- 62310 – *DDS Channel Interface Specification*
- 41450 – *Digital Data System Data Service Unit Interface Specification*

Applications

Figure 1-2 illustrates the Routermate 56/64 in a typical application. Multiple management facilities include local terminal management, Telnet access from anywhere on the network, and local or remote SNMP management. The user can view management screens and initiate diagnostics. 56k and 64k speeds are supported on the V.35 interface for router data.

Figure 1-2 Basic Application

